

# Brad® M12 and M8 Field Attachable Connectors

molex®

**Brad® Field Attachable M12 and M8 connectors provide customers a flexible solution to install and adapt their automation infrastructure to the requirements of their complex machines**

## Features and Benefits

Enhanced, comprehensive field attachable portfolio to complete Molex's current overmolded solutions and complements Flamar's raw cable capabilities

Delivers a solution that can fulfill almost all application requirements from customers

M12 A-Code and M8 field attachable for I/O now available with IDC termination and color coding for each pin

Saves up to 80% of labor effort compared to screw terminated termination. Responds to industry needs for M8 connectivity, as this interface has the highest volume of connectors installed on machines

M12 A-Code Shielded connectors support up to 8 poles

Extends application support to analog signals with proper signal protection against EMC. Delivers solutions for encoder applications (8 poles shielded) or safety equipment (8 poles unshielded)

Addition of M12 A-Code analog support

Eases identification of safety infrastructure compared to standard I/O infrastructure



Machine Builders

## Applications

### Machine Builder

- CNC machines
- Packaging machine
- Manufacturing equipment

### Factory Automation

- Automotive production line
- Conveying and sorting application
- Material handling
- Food & beverage processing
- Robot control

### Commercial Vehicle

- Construction vehicles
- Agricultural machinery
- Garbage trucks
- Military vehicles



Factory Automation



Vehicle Production Line



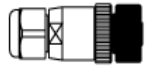
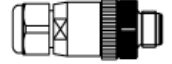
Commercial Vehicles

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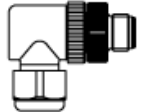


## Brad® Micro-Change® M12 Field Attachable Connectors for Sensors and Actuators

Poles	Cable Size	Wire Gage	Male Straight		Female Straight	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
<b>Unshielded &amp; Screw Termination</b>						
4	3.3-6.6	<AWG 18	8A4006-31	120071-0038	8A4000-31	120071-0035
	4.1-8.1	<AWG 18	8A4006-32	120071-0039	8A4000-32	120071-0036
5	3.3-6.6	<AWG 18	8A5006-31	120071-0045	8A5000-31	120071-0041
	4.1-8.1	<AWG 18	8A5006-32	120071-0047	8A5000-32	120071-0043
8	6.0-8.0	<AWG 20	8A8006-32	120071-0030	8A8000-32	120071-0031

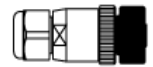
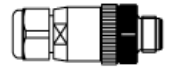


Poles	Cable Size	Wire Gage	Male 90°		Female 90°	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
<b>Unshielded &amp; Screw Termination</b>						
4	3.3-6.6	<AWG 18	8A4007-31	120071-0040	8A4001-31	120071-0037
	4.1-8.1	<AWG 18	8A4007-32	120071-5011	8A4001-32	120071-5010
5	3.3-6.6	<AWG 18	8A5007-31	120071-0049	8A5001-31	120071-0044
	4.1-8.1	<AWG 18	8A5007-32	120071-0071	8A5001-32	120071-0070



## Brad® Micro-Change® M12 Field Attachable Connectors for Sensors and Actuators

Poles	Cable Size	Wire Gage	Male Straight		Female Straight	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
<b>Shielded &amp; Screw termination</b>						
4	6.0-8.0	<AWG 18	8A4S06-32	120071-0032	8A4S00-32	120071-0033
5	6.0-8.0	<AWG 18	8A5S06-32	120071-0034	8A5S00-32	120071-0081
8	6.0-8.0	<AWG 20	8A8S06-32	120071-0082	8A8S00-32	120071-0083
<b>Unshielded &amp; IDC termination</b>						
4	3.5-6.0	AWG26-22	8A4006-51	120071-0086	8A4000-51	120071-0087
	4.0-8.0	AWG22-18	8A4006-52	120071-0088	8A4000-52	120071-0089

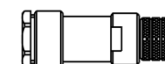
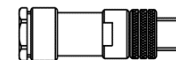


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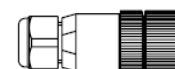
## Brad® Nano-Change® M8 Field Attachable Connectors for Sensors and Actuators

Poles	Cable Size	Wire Gage	Male Straight		Female Straight	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
<b>Unshielded &amp; Soldering Termination</b>						
3	3.5-5.0	AWG 24	N03MA03124	120091-0004	N03FA03124	120091-0001
4	3.5-5.0	AWG 24	N04MA03124	120091-0010	N04FA03124	120091-0007
<b>Unshielded &amp; Screw Termination</b>						
3	3.5-5.0	AWG26-20	N03MA03134	120091-0023	N03FA03134	120091-0024
4	3.5-5.0	AWG26-20	N04MA03134	120091-0025	N04FA03134	120091-0026
<b>Unshielded &amp; IDC Termination</b>						
3	2.5-5.2	AWG24-20	N03MA03144	120091-0027	N03FA03144	120091-0028
4	2.5-5.2	AWG24-20	N04MA03144	120091-0029	N04FA03144	120091-0030



## Brad® Micro-Change® M12 Field Attachable Connectors for Networks

Poles	Cable Size	Wire Gage	Male Straight		Female Straight	
			Engineering No.	Standard Order No.	Engineering No.	Standard Order No.
<b>PROFIBUS B-Code - Shielded &amp; Screw Termination</b>						
5	6.5-8.5	<AWG 18	BA5S06-32	120100-0002	BA5S00-32	120100-0001
<b>PROFINET D-Code - Shielded &amp; Screw Termination</b>						
4	6.0-8.0	<AWG 18	E1AS06-32	130047-0035	E1AS00-32	130047-0037
<b>EtherNet X-Code - Shielded &amp; IPC Termination</b>						
8	6.5-8.5	<AWG 18	X1AS06-53	130047-0042	-	-



[www.molex.com/link/M12.html](http://www.molex.com/link/M12.html)  
[www.molex.com/link/M8.html](http://www.molex.com/link/M8.html)